AMENDMENTS

In the Claims

This listing of the claims replace all prior versions, and listings, of claims in the application. Amendments to the claims are shown by strikethrough for deleted matter or underlining for added matter.

Please cancel claims 21, 24-26, and 29, without prejudice or disclaimer.

1-11. (cancelled)

12. (currently amended) ~~Apparatus~~A system for ~~removing metal ions from wastewater~~treating a slurry stream, comprising:

~~(a)~~ a chemical mechanical polishing unit ~~for chemical mechanical polishing integrated circuits, said chemical mechanical polishing unit having~~comprising a source of a chemical mechanical polishing effluent ~~discharge for discharging a wastewater~~comprising the slurry stream ~~containing byproduct polishing slurry containing copper ions at a level in the range of about 1-100 mg/l~~;

~~(b)~~ a carbon bed connected directly to said source of the chemical mechanical polishing effluent ~~discharge~~, said carbon bed ~~providing means for receiving said wastewater feed containing metal ions in solution, wherein said wastewater feed contains solids sized in the range of about 0.01-1.0 μm in an amount higher than about 50 mg/l~~comprising an activated carbon; and

~~(c)~~ an ion exchange unit connected directly to said carbon bed, ~~for receiving a carbon bed product stream from said carbon bed and for removing said metal ions from solution~~said ion exchange unit comprising chelating ion exchange resin.

13. (currently amended) ~~Apparatus for removing metal ions from wastewater~~The system as set forth in claim 12, wherein ~~said wastewater feed~~the slurry stream contains solids in an amount higher than about 100 mg/l.

14. (currently amended) ~~Apparatus for removing metal ions from wastewater~~The system as set forth in claim 12, wherein ~~said wastewater feed~~the slurry stream contains hydrogen peroxide ~~and said carbon bed product stream has concentration levels of hydrogen peroxide less than about 0.1 mg/l~~.

15. (currently amended) ~~Apparatus for removing metal ions from wastewater~~The system as set forth in claim 14, wherein ~~wastewater feed~~the slurry stream comprises ~~a byproduct polishing slurry and said~~ metal ions ~~comprise copper ions in said byproduct polishing slurry~~.

16. (cancelled)

17. (currently amended) ~~Apparatus for removing metal ions from wastewater~~The system as set forth in claim 15, wherein said chelating ion exchange ~~unit~~resin comprises ~~organic chemical means for contacting said carbon bed product stream metal ions with a resin having a macroporous~~an iminodiacetic functional group ~~to attach said copper ions~~.

18. (currently amended) ~~Apparatus for removing metal ions from wastewater~~The system as set forth in claim 15, wherein said chelating ion exchange ~~unit~~resin comprises ~~organic chemical means for contacting said carbon bed product stream metal ions with~~ cross-linked polystyrene resin ~~to attach said copper ions~~.

19. (currently amended) ~~Apparatus for removing metal ions from wastewater~~The system as set forth in claim 18, wherein said chelating ion exchange ~~unit~~resin comprises ~~inorganic chemical means for contacting said carbon bed product stream metal ions with~~ cross-linked

polystyrene resin having a bead size in the range of about 0.4 to 1.23 mm with a ~~tight~~ uniformity coefficient of about 1.7 ~~to attach said copper ions~~.

20-21. (cancelled)

22. (currently amended) ~~Apparatus for removing metal ions from wastewater~~The system as set forth in claim ~~21~~30, wherein ~~said wastewater feed~~the slurry stream contains solids in an amount higher than about 100 mg/l.

23. (currently amended) ~~Apparatus for removing metal ions from wastewater~~The system as set forth in claim ~~21~~30, wherein ~~said wastewater feed~~the slurry stream contains solids in an amount in the range of about 500-2000 mg/l.

24-26. (cancelled).

27. (currently amended) ~~Apparatus for removing metal ions from wastewater~~The system as set forth in claim ~~25~~30, wherein ~~said means for passing said carbon bed product stream from said carbon bed to an~~the ion exchange ~~unit~~resin comprises ~~means for contacting said carbon bed product stream metal ions with~~ cross-linked polystyrene resin ~~to attach said copper ions~~.

28. (currently amended) ~~Apparatus for removing metal ions from wastewater~~The system as set forth in claim 27, wherein ~~said means for passing said carbon bed product stream from said carbon bed to an ion exchange unit comprises means for contacting said carbon bed product stream metal ions with~~the cross-linked polystyrene resin ~~screened to provide~~has a bead size in the range of about 0.4 to 1.23 mm ~~with a tight uniformity coefficient of about 1.7 to attach said copper ions~~.

29. (cancelled)

30. (new) A system for treating a slurry stream, comprising:

a source of the slurry stream comprising about 1 mg/l to about 100 mg/l copper ions, at least about 400 mg/l hydrogen peroxide, and at least about 50 mg/l solids and having a pH of less than about 7;

a carbon bed comprising granular activated carbon fluidly connected to the source of the slurry stream; and

an ion exchange bed comprising ion exchange resin having iminodiacetic functional groups, the ion exchange bed fluidly connected downstream of the carbon bed.

31. (new) A system for treating a waste slurry stream from a chemical mechanical polishing system, comprising:

a collection tank fluidly connectable to a discharge outlet of the chemical mechanical polishing system;

a circulation line fluidly connected to the collection tank;

a carbon column fluidly connected to the circulation line, the carbon column comprising granular activated carbon; and

an ion exchange column fluidly connected to the carbon column, the ion exchange column comprising chelating ion exchange resin.

32. (new) The system as set forth in claim 31, wherein at least a portion of the chelating ion exchange resin comprises iminodiacetic acid functional groups.

33. (new) The system as set forth in claim 31, wherein the chelating ion exchange resin has a bead size of about 0.4 to about 1.23 mm.